

- FIG. 1. Genital segments of *Sarcophaga savoryi* n. sp.
FIG. 2. Genital segments of *Sarcophaga apertella* n. sp.
FIG. 3. Genital segments of *Sarcophaga wrangeliensis* n. sp.

List of Abbreviations.

- a. c.—anterior clasper.
p. c.—posterior clasper.
a. p.—accessory plate.
f.—forceps.
p.—penis.
g. s.₂—second genital segment.

NOTES ON THE FUNGOUS BEETLE, CIS CYLINDRICUS DURY.

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The following notes relate mostly to the early stages of *Cis cylindricus* Dury. On February 15, 1920, Mr. Chas. Dury sent me several pieces of the fungus *Polyporus versicolor* which had been collected in San Francisco, California, and which contained numerous specimens of *Cis cylindricus*. A few beetles were mounted and the remainder placed in a jar together with some pieces of uninjured fungus and the whole thing overlooked until May 10 at which time eggs, larvæ and pupæ were secured. The same species was taken from *Polyporus versicolor* collected by Mr. W. J. Chamberlin at Corvallis, Oregon, in March and from *Polyporus hirsutus* collected in Linn Co., Oregon, during October.

All of the larval feeding took place in the context of the fungus, the channels extending in all directions but most of them being parallel with the surface of the fungus on account of the thinness of the context. The eggs were found at the ends of burrows made in the context and pupation also took place in this part of the fungus, the pupæ being found, as a rule, in the basal part. The beetles appeared to feed on both the context and tubes, the only part left untouched being the upper surface of the pileus.

Polyporus versicolor occurs on all kinds of dead wood and *Polyporus hirsutus* on the dead wood of deciduous trees. Both are common polypores. In confinement, many species of *Cisidæ* will continue feeding and breeding in dry *Polyporus versicolor* until the fungus has been practically all consumed. In the field, however, perfectly dry specimens of this polypore are not infested to the same extent as those which are more or less moist.

Egg.—Length, 0.43 mm.; width, 0.23 mm. Whitish, translucent, oval.

Full-grown Larva.—Length, 2.4 mm.; width, 0.5 mm. Elongate, subcylindrical, tapering slightly anteriorly and posteriorly, segmentation distinct. Whitish except for mouth parts, tarsal claws and dorsal hooks of ninth abdominal segment which are brownish. Head slightly creamy, narrower than prothorax. Prothorax twice as long as mesothorax. Remaining thoracic and abdominal segments subequal in length. Body segments bear a few fine hairs, more numerous on anal segment. Last abdominal segment bears a pair of minute, slightly recurved, chitinous hooks.

Pupa.—Length, 1.8 mm.; width, 0.7 mm. Whitish, somewhat elongate. Anterior edge of prothorax bears a row of minute tubercles each bearing a fine hair. Several similar tubercles on either side of middle close to posterior edge of prothorax. A comparatively large, blunt median, dorsal tubercle on mesothorax. A few posteriorly directed hairs on dorsal surface of abdomen. Sides of abdominal segments 2, 3, 4, 5 and 6 slightly produced laterally, somewhat tuberculate, each swelling bearing a fine hair. Abdomen terminated by two acutely pointed, slightly diverging, fine spines.

Adult.—*Cis cylindricus*. This was described by Drury in the *Jour. Cinc. Soc. Nat. His.*, Vol. XXII, No. 2, p. 7, Nov. 1, 1917, from specimens collected in Umatilla Co., Oregon, by G. F. Moznette. Mr. Dury states that it is, "Elongate, cylindrical. Black, very like *Cis hystricula* Csy., but differs as follows: Head larger, elytral punctures very coarse and deep, setæ coarse and sparse. Clypeal tubercles porrect. Male with fovea at middle of first ventral segment."